

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of**

Lin Hai, et al.

Serial No.: 10/573,446

Group Art Unit: 2879

Filed: March 24, 2006

Examiner: Thomas A. Hollweg

For: PLASMA DISPLAY PANEL AND METHOD OF MANUFACTURING SAME

**DECLARATION UNDER 37 C.F.R. § 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

We, Hai Lin, Taro Naoi, Atsushi Hirota, and Takeshi Sasaki, hereby declare and state:

THAT we are citizens of China, Japan, Japan, and Japan, respectively;

THAT we received the following degrees:

Hai Lin received his B.E. degree from Xi'an Jiatong University, China, in 1990  
and his M.E. degree from Hiroshima University, Japan in 1996;

Taro Naoi received his B.E. and M.E. degrees in electronic engineering from  
Tokyo University of Agriculture and Technology, Tokyo Japan, in 1998 and 2000, respectively;

Atsushi Hirota received his B.E. degree in the Graduate School of Science and  
Technology from Shinsyu University; and

Takeshi Sasaki received his B.E. degree in Physics from Okayama University;

THAT we are familiar with the Office Action dated June 20, 2008, where the Examiner  
asserted that claims 1-6, 9-12, 14-19, 22-25, 28-29, and 31-34 were anticipated under 35 U.S.C.

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(EBI.053)

§ 102(b) by Miyashita, et al. (JP 2002-150953; hereinafter “Miyashita”), claims 7, 8, 13, 24, 25, and 30 were unpatentable under 35 U.S.C. § 103(a) over Miyashita, claim 20 was unpatentable under 35 U.S.C. § 103(a) over Miyashita in view of Sakurai, et al. (U.S. Patent No. 6,821,616; hereinafter “Sakurai”), and claims 21, 26, and 27 were unpatentable under 35 U.S.C. § 103(a) as over Miyashita in view of Bocko, et al. (U.S. Patent No. 4,604,118; hereinafter “Bocko”). In particular, the Examiner “that based on the size and configuration of the magnesium oxide crystals disclosed by Miyashita, the magnesium oxide layer of would (*sic*) cause a cathode-luminescence emission having a peak within a wavelength range of 200 nm to 300 nm upon being excited by electron beams”;

THAT we are co-inventors of the above-identified application;

With respect to the Examiner’s rejections, we state and declare that the attached data (see Figures A-E) that the claimed CL emission having a peak within a wavelength range of 200nm to 300nm upon excitation by an electron beam is not caused from a MgO layer formed by vacuum evaporation (vapor deposition) as taught in Miyashita.

Figure A shows intensities of CL emission emitted from an MgO layer formed by vapor deposition with a thickness of about 2000, 3000, and 8000 angstrom.

Figures B-D respectively show surface and cross sectional photographs of SEM of MgO layers formed by vapor deposition, which are measuring objects of Figure A.

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Figure E shows a comparison of intensities of CL emission emitted by an MgO layer formed by CVD (chemical vapor deposition) and PVD (physical vapor deposition).

As shown in Figures A and E, MgO crystals formed by vapor deposition does not emit CL emission with a peak wavelength of 200nm to 300nm by being excited by an electron beam.

We declare further that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 18/09/2008

Hai Lin  
Mr. Hai Lin

Date: 17/09/2008

Taro Naoi  
Mr. Taro Naoi

Date: 18/09/2008

Atsushi Hirota  
Mr. Atsushi Hirota

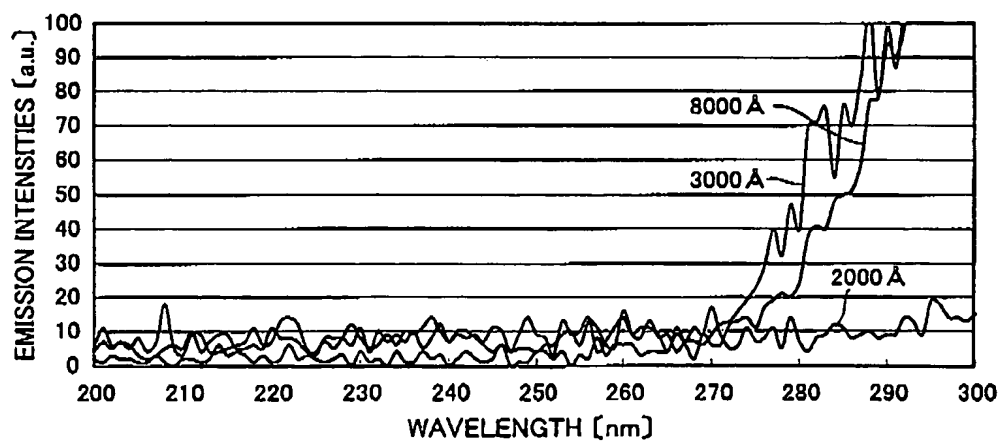
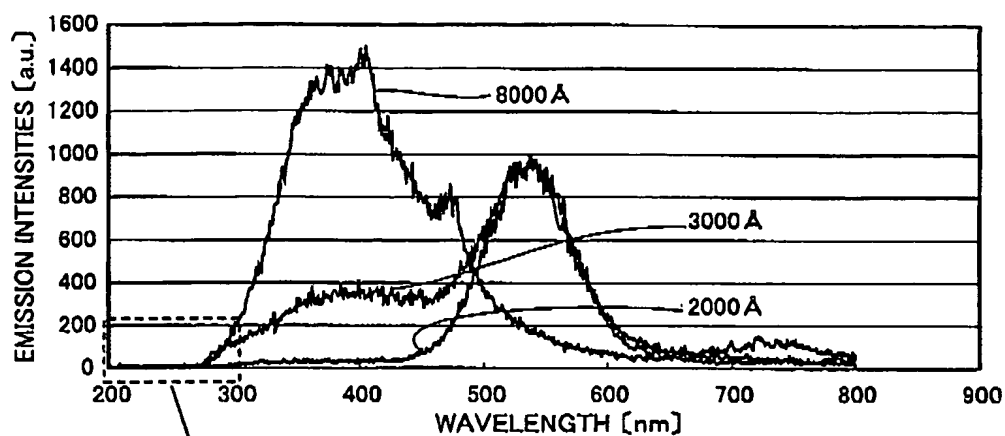
Date: 17/09/2008

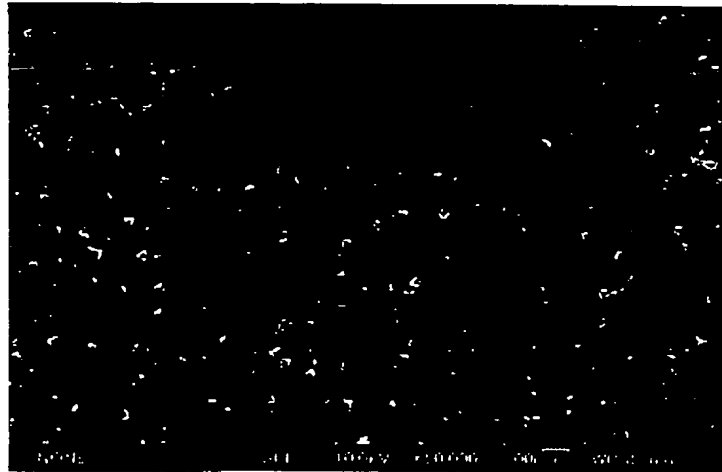
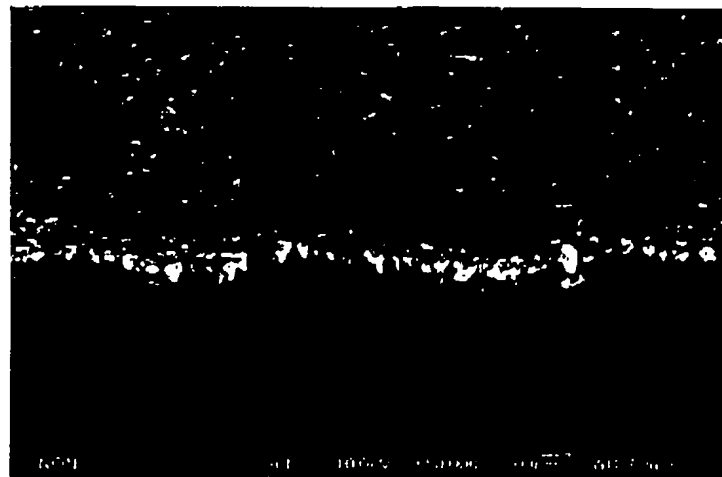
Takeshi Sasaki  
Mr. Takeshi Sasaki

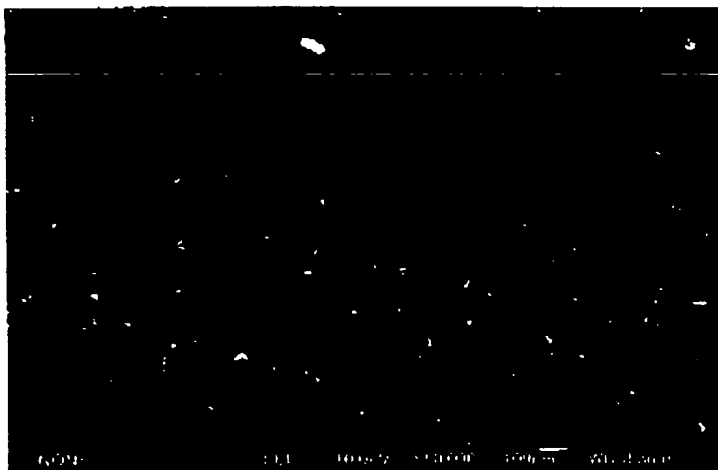
# DATA

## Fig. A

Intensity of CL Emission emitted from MgO layer formed by vapor deposition



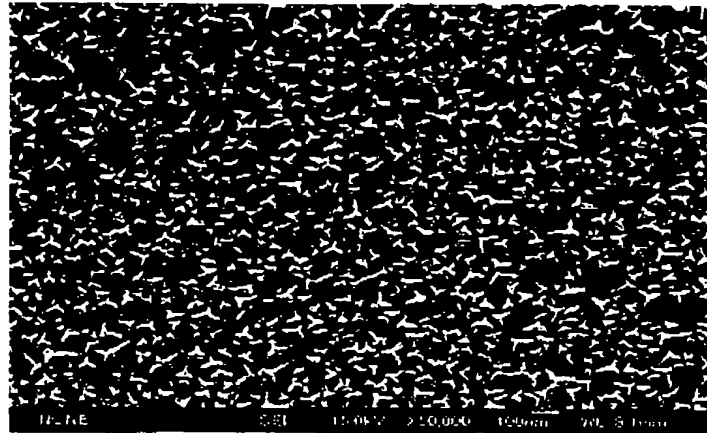
***Fig. B*****THICKNESS 2000 Å****SEM MgO LAYER SURFACE PHOTOGRAPHS****SEM MgO LAYER CROSS-SECTIONAL PHOTOGRAPHS**

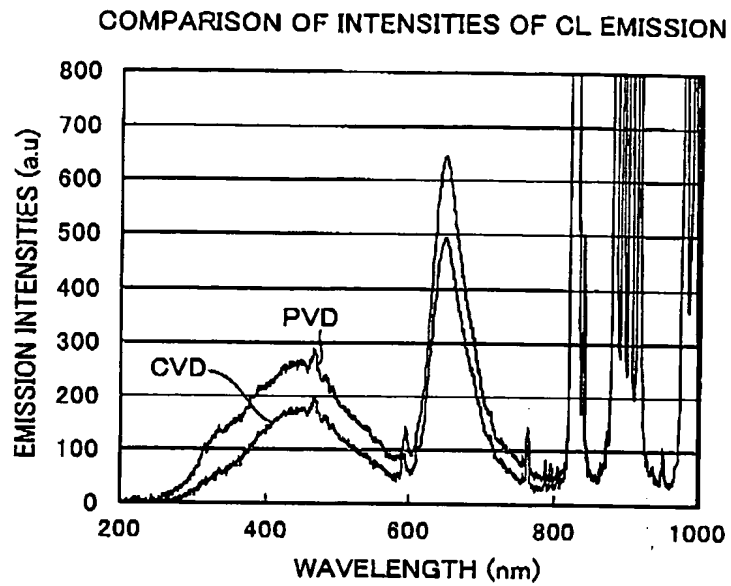
*Fig. C***THICKNESS 3000 Å****SEM MgO LAYER SURFACE PHOTOGRAPHS****SEM MgO LAYER CROSS-SECTIONAL PHOTOGRAPHS**

*Fig. D*

THICKNESS 8000 Å

SEM MgO LAYER SURFACE PHOTOGRAPHS



***Fig. E***

CVD : Chemical Vapor Deposition

PVD : Physical Vapor Deposition